

Outlook

The University of Maryland Faculty and Staff Weekly Newspaper
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History Professor Peter Miller Named MacArthur Fellow

Peter Miller, newly appointed assistant professor of history, has been granted \$220,000 by the John D. and Catherine T. MacArthur Foundation as one of 29 MacArthur fellows. At 33, he has the distinction of being this year's youngest recipient of the honor, which he shares with economists, scientists, writers, human rights activists, a cattle rancher and Tim Berners-Lee, a developer of the World Wide Web.

A scholar of early modern European intellectual history, Miller arrives at the university mid-August. He is the university's first and only MacArthur fellow.

"He's going to be a lovely addition to the university," says James Harris, dean of the College of Arts & Humanities. "He's really first-rate."

Currently, Miller is a fellow at the Wissenschaftskolleg zu Berlin/Institute for Advanced Study. From 1993-1996, he was Mellon Instructor in the Social Sciences at the University of Chicago. From 1990-1993, he was a research fellow at the University of Cambridge.

Miller graduated magna cum laude from Harvard College in 1986 and earned his master's degree in history from Harvard University in 1987. He obtained his Ph.D. from University of Cambridge in 1990.

The MacArthur Foundation stipends, spread out over five years, range from Miller's \$220,000 to \$375,000—the older you are, the larger the amount. The award carries no restrictions or instructions.

"The program underscores the power and possibilities of human creativity in all areas of endeavor, in all groups and at all ages," says Daniel Socolow, the MacArthur fellows director. Individuals cannot apply—winners are selected by an anonymous committee, which reviews the nominations of a larger group of anonymous "talent scouts."



The Dairy's Back in Business

This "udderly" cool cow stands proud, welcoming university patrons into the newly renovated dairy sales room. After several months of renovation, the dairy opened July 6, offering an old-fashioned ice cream parlor look with some modern twists, an expanded seating area and some new menu choices, including a special carved sandwich of the day and a wide variety of beverages and snacks.

And just in time to help beat the heat, ice cream lovers can enjoy their favorite flavor from a full ice cream bar or partake in any number of dynamite dairy delights.

Dairy hours are 8 a.m. to 5 p.m., Monday through Friday.

Research Team Creates World's Smallest Transistor *Discovery Could Lead to Big Advances in Computers*

A research team at the University of Maryland has created the world's smallest transistor. This innovation could enable trillions of transistors to fit on one computer chip—100-times more than is possible with today's technology.

Using a principle called tunneling physics, the researchers have produced a 25-nanometer transistor and recently figured out how to make one as small as 10 nanometers. Because transistors serve as the on-off switches that execute a computer's instructions, this advance could be a key to the development of smaller, more complex, and more efficient integrated circuits for computers.

"What industry leaders are looking for

is a solution that enables them to make chips that are smaller in size and consume less power," says Chia-Hung Yang, associate professor of electrical engineering. "Our transistor technology meets both of these requirements."

Transistors act as electrical on/off switches. Conventional transistors, or metal-oxide-semiconductor field effect (MOSFET) transistors, contain channels through which electrons diffuse. When electrons are allowed to diffuse freely through the channel the transistor is on, and when diffusion is (mostly) stopped the "switch" is off. In this type of transistor, if the channel is too short, diffusion cannot be stopped, resulting in a transistor

that is always on.

The new transistors designed by Yang's team are called tunneling-in, tunneling-out, field effect (TITOFET) transistors. In this type of transistor the channel is replaced by a wall through which electrons must tunnel. By making it harder or easier for electrons to tunnel through the wall, the transistor can be switched on or off. This new type of transistor can be much smaller than conventional ones because the wall can be as thin as 10 nanometers, much shorter than the minimum channel length needed for conventional transistors, Yang says.

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Terps Crack Sears Directors' Cup Top 20 Ranking

University of Maryland earned inclusion in the top 20 of the Sears Directors' Cup, the national Division I all-sports ranking measuring overall athletic competitiveness.

In final standings released by the National Association of Collegiate Directors of Athletics, the Terrapins' athletic program was ranked tied for 19th out of 306 Division I schools. It is the highest finish for the Terps since the rankings began five years ago, and Maryland's 38-position jump from the No. 57 spot in the final 1994-95 rankings is the greatest in that

time period by a school not previously ranked in the top 25. The Terps' previous best was 48th, in 1993-94.

"This is exciting news for everyone associated with the University of Maryland's athletic program—student-athletes, coaches, staff, alumni and boosters," said Deborah Yow, who is beginning her fifth year as director of athletics. "Reaching the top 25 has been a long-standing goal for all of us, and today we can take pride in the fact that despite budgetary obstacles, we maintained our focus and achieved as a department what we set

out to do. I can also say that while we are extremely proud of today's ranking, not one person in our athletic family is satisfied with where we are or interested in resting on our laurels. Our aim is to keep progressing to the point we become a fixture in the top 10. We'll settle for nothing less."

Since 1995, when the Terps finished 57th in the Sears Directors' Cup, Maryland has made steady progress in the rankings. The Terps jumped 21 spots (to 36th) in

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African American Memorial Garden Graces Rossborough Lawn



As others gather in the background to look on, former president William E. Kirwan, left, joined BFSA leaders John Bowman, Alice Murray, Laura Anderson and Bill Armstrong in cutting the ribbon for the new African American Memorial Garden located outside the Rossborough Inn.

On the south lawn of the Rossborough Inn, you'll now find a pleasant, landscaped spot for resting, relaxing and contemplating. This serene, green space is the newly created African American Memorial Garden meant to honor the many African Americans who have contributed to the university throughout its history.

At a June ceremony dedicating the new garden, former Black Faculty and Staff Association president William Armstrong noted that at one time the Rossborough Inn was the site of slave quarters, housing 19 slaves.

Made possible by the efforts of the BFSA, the garden is more than green plants and mulch. Lovely brick sidewalls and sidewalks were created to tie in with the brickwork already in place outside of the Rossborough Inn, and a wooden bench invites you to sit and take in the scenery. A commemorative plaque will soon grace the garden as well.

According to Wendi Ramsden, landscape technician with the department of architecture, engineering and construction, who designed the garden, the pathway was designed to "pull people off the patio and draw them into the space." Evergreen plants were chosen for year-round



Murray, Armstrong, Anderson and Bowman take a moment to pose on the wooden bench the BFSA purchased for the memorial garden.

appeal. More trees will be added this fall.

Former President William E. Kirwan, who was on hand for the ceremony, noted "It's important to remind ourselves constantly of man's inhumanity to men." The garden, he said, is a nice means of recognizing "those who had the courage to live through this [inhumanity]."

—JENNIFER HAWES

in memoriam

George Kramer, Former Gymkana Coach Dies

George Kramer, 70, of Edgewater, died July 6 at his home after a long illness with cancer. Kramer began teaching at the University of Maryland in 1956. He was the director of the Required Men's Physical Education Program and, for more than 30 years, he donated his time to coach and develop the University of Maryland Gymkana Troupe.

Kramer spent two years as acting dean for the College of Health and Human Performance (HLHP) and following his retirement in 1984, served as assistant dean until his death.

In lieu of flowers, memorial contributions may be made to the University of Maryland Foundation—Gymkana Troupe c/o College of HLHP, 3310 HLHP Building, CAMPUS.

World's Smallest Transistor Created

Continued from page 1

In addition, TITOFET walls force the electrons to move in waves, causing them to travel faster. This acceleration of electrons increases the transistor's conductivity.

For industry, these innovations potentially equate to smaller, faster, lower-power chips that could greatly speed up the race to squeeze more and more transistors onto a single chip.

"The current consensus is that using present technologies, transistors will go down to 0.1 micrometers within 10 years," says Yang. "We have already demonstrated a technology that would allow the chip-fabrication industry to beat that prediction by 100 times."

"Whether or not this technology is adopted wide-scale by industry will come down to practical issues," he says. "It will require a new fabrication process—and any time you change the way something is manufactured, it means risk and added investment. But our technology has all of the main ingredients that industry leaders want."

"Coming up with a manufacturing process that is low-cost and reliable is going to be our next step," Yang says.

Yang's group first realized the world's smallest transistor,

at 25 nanometers last year, when they concurrently published a paper in the June 1997 issue of *Applied Physics Letters*. This year, however, the Maryland team discovered a modification to their previous year's results that will allow them to fabricate a 10-nanometer transistor. At that size, it would take 100,000 transistors to span the width of a single human hair. The results of these new findings were recently published in *IEEE Transactions on Electron Devices*.

Others are trying to catch up (or should we say down) to Yang and his colleagues. Bell Laboratories, based in Murray Hill, New Jersey, has characterized 60-nanometer transistors, while Sandia National Laboratory in California has achieved transistors as small as 2 micrometers. This puts the Maryland group far ahead, with a transistor six times smaller than their competitors' tiniest.

The Maryland research team, directed by Yang, consists of four students—C. K. Huang, W. T. Hsieh, K. A. Cheng, and T. H. Chang, as well as M. J. Yang and R. B. Bennett from the Naval Research Laboratory, and R. A. Wilson and D. R. Stone, from the National Security Agency's Laboratory for Physical Sciences.

*Outlook resumes its weekly
publication schedule Sept. 1.*

Outlook

Outlook is the weekly faculty-staff newspaper serving the University of Maryland campus community. Vice President for University Advancement **Reid Crawford**, Acting Executive Director of University Communications and Director of Marketing **Teresa Flannery**, Executive Editor **Cassandra Robinson**, Editor **Jennifer Hawes**, Assistant Editor **Londa Scott Forté**, Editorial Interns **Kelley Fitzgerald**. Letters to the editor, story suggestions and campus information are welcome. Please submit all material two weeks before the Tuesday of publication. Send material to Editor, Outlook, 2101 Turner Hall, College Park, MD 20742. Telephone (301) 405-4629; e-mail outlook@accmail.umd.edu; fax (301) 314-9344. Outlook can be found online at www.inform.umd.edu/outlook/

Wind, Water, Whitbread

Wind Tunnel Research Helps Build Better Sails

Attracting sailing enthusiasts from around the world, the international Whitbread sailing competition is of local importance this year thanks partly to recent university-based research.

After departing last September from South Hampton, England, the eight competing boats travelled around the world in nine individual legs and returned to South Hampton the weekend of May 23.

Sails developed from research performed in the university's Glenn L. Martin Wind Tunnel were used on two of the competing boats; Swedish Match and Brunel Synergy. While Swedish Match (the third place finisher) did considerably better than Brunel Synergy, university research associate Robert Ranzenbach attributes the outcome to substantially more funding and a highly experienced crew that sailed together numerous times before the competition.

A satellite communication system downloaded email and live videos of the competition to put on the web page, which was updated every six hours. The system communicated the boats' location, race status and whether they needed special assistance. With a scoring system consisting of at least 100 points for each leg, the winner of the competition received 836 cumulative points out of a total of 1035.

Under the combined supervision of Ranzenbach and the Annapolis-based company, Quantum Sails, wind tunnel tests were performed for about one year prior to the competition. Instead of researching the performance of sails through test boats, the wind tunnel provides a more cost efficient and time conserving approach to studying the sails, says Ranzenbach.

Sails are developed in different shapes and sizes, based on the sail position, boat speed and relative wind angle. The researchers wanted to design an

inventory of sails for optimal performance based on various wind conditions. Because each sail has an optimum angle and wind speed at points called "crossovers," part of determining the sail's success is understanding when to change the sail based on the crossover.

The main objective of the research was to determine what types and sizes of "offwind" sails (used when boats operate at an angle of 45-160 degrees relative to the wind) were optimal for expected conditions of the race's individual legs, and how the performance could be altered by changing sail design. This research on offwind sails was the first of its kind to be performed in the United States.

While the closest angle a sail can maintain relative to the wind is 30 degrees, sails with an angle of 30-45 degrees are considered "upwind" sails. Because there has been substantial success with the study and development of these types of sails, the researchers were more concerned with the study of offwind sails.

Ranzenbach says the wind tunnel research was strengthened by the university's—and his own—previous experience with America's Cup campaigns and yacht research, as well as funding by the Maryland Industrial Partnerships (MIPS) program.

Occurring every four years, the structure of the Whitbread competition changes each year it is held.



University research associate Robert Ranzenbach was on hand to see the two boats whose sails he helped test in the wind tunnel compete in the Baltimore leg of the Whitbread sailing competition.

Decisions about the next competition will be made by Volvo, which is scheduled to be the competition's future sponsor.

—KELLEY FITZGERALD

Education by the Bay

Chesapeake Bay is Setting for Hands-on Environmental Journalism Expedition

Maryland journalism students had an unusual opportunity to explore the important environmental issues concerning the Chesapeake Bay in a 10-day, hands-on expedition in late May/early June. The program included site visits around the Chesapeake to chicken farms, fisheries, forests and other areas dependent on the local environment.

The Chesapeake Institute for Journalism and Natural Resources included seven journalism students from Maryland, nine environmental science and management students from Duke University, four early-career journalists in Maryland and three students from other universities.

The fellowship program was founded by Frank Edward Allen, a former *Wall Street Journal* reporter who has taught here as an adjunct professor, and will again teach in the fall.

"I have always wanted us to get more into environmental journalism," says Reese Cleghorn, dean of the College of Journalism. "Frank has the highest regard for our school and wanted the new Chesapeake Institute to have a special relationship with us and with Duke, because of its strength in environmental sciences."

The eclectic group began its journey in Annapolis May 26, sailing on a restored skipjack, a boat designed for dredging oysters in the Chesapeake. For Maryland students, the experience of thoroughly exploring an issue gave them a new-found perspective on covering the environment.

"Everything is not cut and dry, especially in environmental issues. We spent 10 days and only scratched the surface of the problems and solutions," said Nasim Moalem, a 1998 journalism and business management graduate.

One panel discussion included Howard Glasgow, a

professor from North Carolina State University who studies *Pfisteria piscicidia*, the microorganism, responsible for fish kills in the Pocomoke River last August. "I lived in Maryland when the whole crisis broke out, and I still didn't understand exactly what it was about, how dangerous it was, who was affected and why it was affecting us now," said Moalem. "That session was, by far, the most enlightening and interest-



ing part of the trip."

Other participants thought the site visits and panels helped piece together the big picture. "The biggest benefit of this experience was traveling the path that leads to the whole story, the multitude of forces that are contributing to the Chesapeake Bay's decline," said Dina Cappiello, from Columbia University's earth and environmental science journalism program.

For environment students from Duke, the chance to interact with current and future journalists gave them a new outlook on journalists and the constraints they feel. "For me, the most intriguing part of this trip, and the reason I wanted to attend, was gaining a little better understanding of how journalism operates," said Kathy O'Neill, a doctoral candidate in forest ecology and soil science at Duke. "Until this trip, I really had a limited awareness of the time pressures journalists face and this changed a lot of my perceptions about the media."

Talking extensively with each other about environment stories and the various issues affecting them helped the participants from different backgrounds realize the complexity of the issues, such as the fish kill in the Pocomoke, and how to focus in on the central themes.

"I don't pretend to be a scientist, or even someone with an environmental background, aside from my camping experience, but I think I now have a better idea of how to talk with both environmentalists and scientists to get the information I need," said Ben Werner, a reporter for the *Easton Star-Democrat*.

The last three days of the trip were spent on Smith Island, an island in the bay that relies on blue crabs for the majority of its economy. The program included setting out crab pots, learning about the decline of the oyster population in the Chesapeake and observing a local bird rookery.

—MATTHEW CHIN

Chin, a journalism graduate student, was one of the seven University of Maryland students who participated in the Chesapeake Institute for Journalism and Natural Resources

dateline maryland

july 22 - september 2

22 July

10 a.m. International William Kapell Piano Competition and Festival Masterclass with Vladimir Viardo. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

1 p.m. University of Maryland's International William Kapell Piano Competition and Festival: "Texture and Time in Beethoven's Sonata No. 32 in C minor, Op. 111." Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

3 p.m. University of Maryland's International William Kapell Piano Competition and Festival: Semi-Final Round. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

8:30 p.m. University of Maryland's International William Kapell Piano Competition and Festival Concert by Brigitte Engerer. Tawes Theatre. 403-8370.*

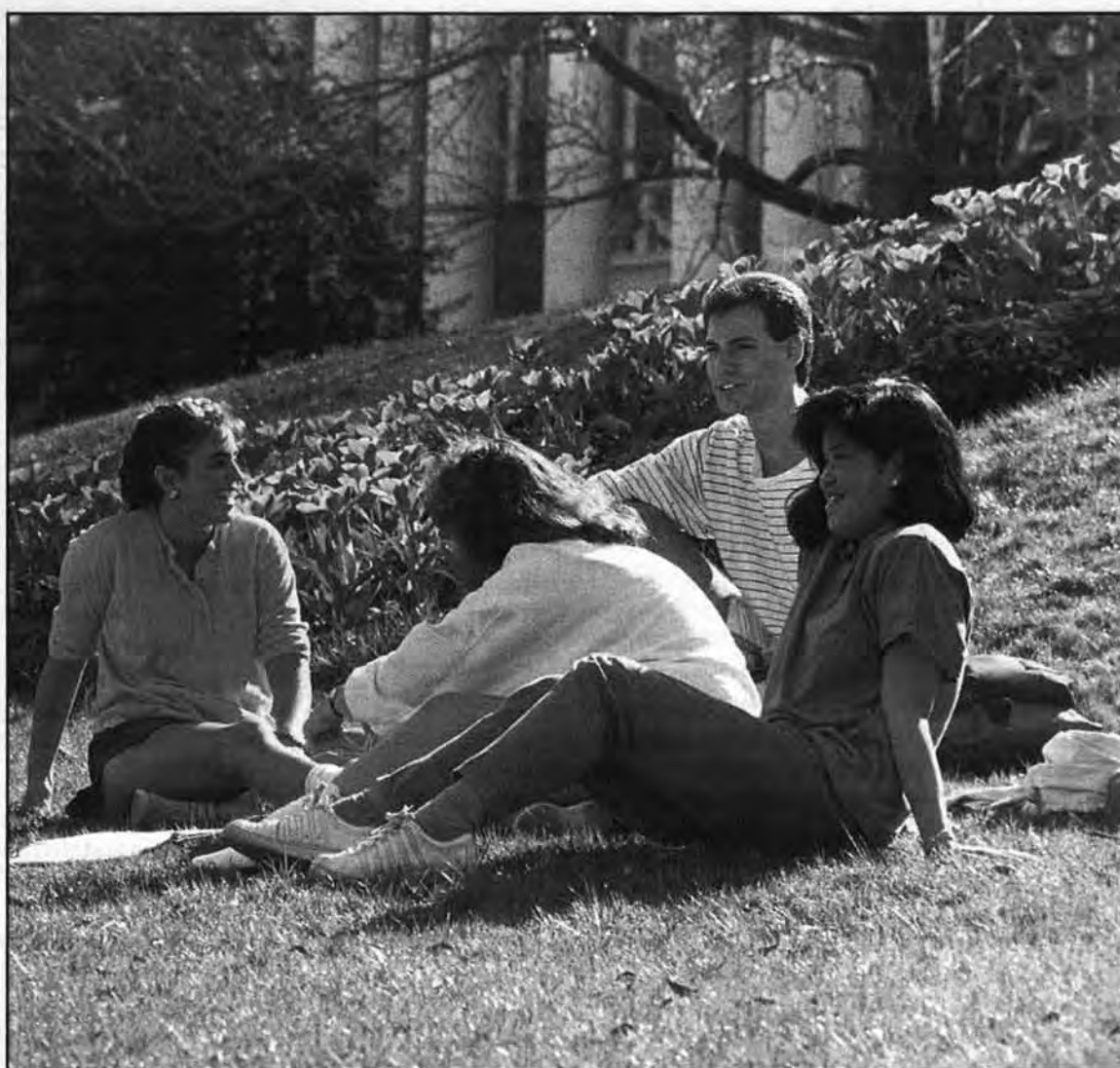
24 July

10 a.m. International William Kapell Piano Competition and Festival Masterclass with Bruno Leonardo Gelber. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

1 p.m. International William Kapell Piano Competition and Festival Colloquia-Masterclass: School of Music Piano Faculty with students presented by The Maryland State Music Teachers Association. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

3 p.m. International William Kapell Piano Competition and Festival: Piano Archives at Maryland Exhibition Lecture and Demonstration of "The Art of Sergei Rachmaninoff on His Recordings." Hornbake Library. 403-8370.*

8:30 p.m. International William Kapell Piano Competition and Festival: Recital by Marc-Andre Hamelin. Tawes Theatre. 403-8370.*



23 July

10 a.m. International William Kapell Piano Competition and Festival Masterclass with Brigitte Engerer. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

11:45 a.m. International William Kapell Piano Competition and Festival: Friends of The Rossborough Festival Awards Luncheon. University College Conference Center. 403-8370.*

2 p.m. International William Kapell Piano Competition and Festival: "Recent American Piano Music: The Triumph of the Vernacular," Robert Levin. Ulrich Recital Hall, Tawes Fine Arts Building. 403-8370.*

8:30 p.m. International William Kapell Piano Competition and Festival: Recital by Bruno Leonardo Gelber. Tawes Theatre. 403-8370.*

25 July

10 a.m. International William Kapell Piano Competition and Festival Masterclass with Etsko Tazaki. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

1 p.m. International William Kapell Piano Competition and Festival: "Rachmaninov's Piano Sonata No. 2 and its Kinship to Chopin's Piano Sonata No. 2," a lecture-recital given by Santiago Rodriguez. Ulrich Recital Hall, Tawes Fine Arts Bldg. 403-8370.*

2 p.m. "Maryland Printmakers" demonstration by the Parents' Association Gallery. Adele H. Stamp Student Union. 4-8493.

8:30 p.m. International William Kapell Piano Competition and Festival Competition Final Round with The Baltimore Symphony Orchestra, Yuri Temirkanov, Maximiano Valdes and Conductor. Kennedy Center, Washington D.C., Concert Hall. (202) 467-4600 or 403-8370.*

27 July

4 p.m. "Maryland Printmakers" demonstration by the Parents' Association Gallery. Adele H. Stamp Student Union. 4-8493.

10 August

Noon. Fall textbooks will be available at the University Book Center. Search for your textbooks online at www.inform.umd.edu/ubc. During Aug. 31 - Sept. 11 the University Book Center will be open extended hours. For information and Center hours please call 4-BOOK.

23 August

Noon. Fall textbooks will be available at the University Book Center. Search for your textbooks online at www.inform.umd.edu/ubc. During Aug. 31 - Sept.

11 the University Book Center will be open extended hours. For information and Center hours please call 4-BOOK.

26 August

Noon. "Commuter Survival Day." Location to be announced.

28 August

Noon. New Student Welcome and Picnic. Location to be announced.

29 August

Noon. New Resident Orientation. Location to be announced.

September

7:30 a.m. "Good Morning Commuters!" Every Wednesday. Free doughnuts, coffee and information. Stamp Student Union Atrium. 4-5274.

Midnight. "Late Night" at the Union. The Union is open late for your convenience every Wednesday.

Calendar Guide

Calendar phone numbers listed as 4-xxxx or 5-xxxx stand for the prefix 314- or 405-. Events are free and open to the public unless noted by an asterisk (*).

All calendar information for Outlook is downloaded directly from inform's master calendar, located on the Internet at www.inform.umd.edu.

Submissions to inform can be made by e-mail to: calendar@umail.umd.edu. To reach the inform calendar editors by phone, call 405-0825.

notable

Kaye Brubaker, assistant professor in the civil engineering department, has won a National Science Foundation Career Award for her research on "Space-Time Patterns in Snowmelt: Research and Education for Hydrologic Forecasting." William Destler, dean of the Clark School of Engineering, notes this is the 13th Career Award to Clark School faculty in the last three years.

According to Brubaker's research abstract, "In regions with significant seasonal snowpacks, some of the most devastating floods are caused by sudden snowmelt or rain-on-snow events. In the United States, operational hydrology has made great strides in short-term and extended forecasting of these disastrous events, aided by sophisticated observations and models."

Brubaker's research will use observations from surface as well as satellite instruments to develop theoretical tools to generate mathematical expressions for physical variability and measurement uncertainty. The tools will be developed for a variety of topographic and climatic situations and for different resolutions of measurement.

The research results and techniques

will be integrated into graduate and undergraduate education, enhancing the technological expertise of future water resource engineers.

William Holliday, professor of science education in the department of curriculum and instruction has been named research division director of the National Science Teachers Association (NSTA). His two-year term began June 1.

In addition to serving as chairperson of NSTA's Committee on Research, Holliday serves on the NSTA Board of Directors. In this role, Holliday will work to encourage the continued improvement of science teaching and learning by supporting research in the science classroom and making the results of this research available to K-12 teachers. He will also focus attention on how parents, educators and other citizens can help motivate students to study, think and solve problems.

Melvin Levin, professor of urban studies and planning, is the author of the newly published book "Teleworking and Urban Development Patterns: Goodbye Uglyville-Hello

Paradise". The book addresses the impact of advances in telecommunications on community development. It discusses the likelihood of an acceleration of suburbanization, particularly in the outer suburbs of cities along with the potential growth in college towns and recreation areas, and considers the likelihood of an increase in the problems of central cities as this spreading out of wealth occurs. In addition, the possible negative effects of telecommunications technology, such as virtual reality, on social relations are discussed, along with possible methods of dealing with this technology's potential power over the community.

Beth Wade has joined the Smith School of Business as

assistant dean for external relations. She is responsible for developing, implementing and managing strategic marketing programs to enhance the school's relations with the business community, alumni and other constituent audiences.

Before joining the School of Business, Wade held marketing and communications management positions at Group 1, Software, Inc., a marketing software company headquartered in Lanham. Most recently she was product marketing manager for the DOC1 system, the company's flagship product for automated document composition.

Wade holds a master's degree in administration from Johns Hopkins University and a bachelor's degree from The Maryland Institute, College of Art.



Beth Wade

Virtually Art: World Famous Works of Art on Display in College Park

Art by Renoir, da Vinci and Cezanne is found in some of the most renowned galleries around the world, but this summer it's on display in the Art Library—via CD-ROM, that is.

Located on the second floor of the Art-Sociology Building, the Art Library is home to several CD-ROM art collections which are brought to life on a 31-inch computer monitor.

According to the Art Library staff, its extensive collection of CD-ROMS weren't being fully utilized. But that changed last spring when the department received a computer with a 31-inch screen. The computer originally was used in the library instruction room for students accessing the databases.

"During the summer there's no library instruction; it seems a shame to have this wonderful monitor and not make use of it," says Lynne Woodruff, manager of art information services. The Art Library staff members who conceptualized the idea include Warren Stephenson, Kathy Cowan, Louise Greene, Mary Anne Seman and Herb Whitaker.

While other universities have similar CD-ROM collections, Woodruff says it's the large monitor that sets Maryland's collection apart from the rest. "It's just like

being there," she says.

"It gives you a floor plan of the gallery," notes Greene, reference librarian, about the CD-ROM "A Passion for Art: Renoir, Cezanne, Matisse and Dr. Barnes," which allows the viewer to travel among the different rooms of the gallery. With a touch of the mouse the viewer can access links to magnify a particular piece of art work, then click on a box to find out more information about the work or its artist. Many of the CDs also feature historical timelines, QuickTime films and audio narration.

"These are things that you probably will not find in a print publication," says Greene.

"You'd have to get a number of books [to obtain all the information available on the CD]. The nice thing about this is that a lot of the information is right there in one stop," says Woodruff.

The CD-ROMS available include:

"A Passion for Art: Renoir, Cezanne, Matisse and Dr. Barnes" — featuring 330 works by 69 artists from the museum collection. The disc provides access not only to the images, but also background information on the works, the artists and the social/historical context.

"The Collection of the National Gallery, London" — containing images of the museum's entire permanent collection. The images and text can be searched, sorted and viewed by artist name, time period, subject or geographic region.

"Paul Cezanne: Portrait of My World" — its contents are presented with reference to five settings in which the artist lived and worked and links to art, music, monologues, literature and cinema.

"Leonardo da Vinci" — an interactive CD-ROM featuring audiovisual programming which presents the entire Codex Leicester, plus a wide range of background information on da Vinci.

Other titles available for viewing include: "Ancient Egyptian Art from the Brooklyn Museum," "Great Paintings Renaissance to Impressionism: The Frick Collection," "Masterworks of Japanese Painting: The Etsuko and Joe Price Collection," "National Museum of American Art," "National Portrait Gallery: Permanent Collection of Notable Americans" and "Robert Mapplethorpe: An Overview."

—LONDA SCOTT FORTÉ

May 1998 CUSS Report

CHANCELLOR'S COUNCIL: It is unclear if the institutions completely understand the nonexempt outstanding merit pay issues and policies. Several presidents were under the impression the policy allows either merit pay increases or bonuses to reward outstanding employees.

Several presidents continued to champion the idea of bonuses instead of a percentage increase for outstanding nonexempt employees. An amended policy draft is being prepared for future submission to the Board of Regents.

COMMUNICATIONS WITH ADMINISTRATION: There needs to be more complete communication between the Council and the institution presidents. Information may travel from human resources directors and financial offices to the presidents, but the presidents also need information from the Council.

The Council agreed this is as important as keeping the Chancellor and the Regents informed about System staff and staff concerns. It should be part of a Council member's job to meet with that member's president on a regular basis, to keep the president informed of Council actions and concerns.

The lack of permanent H.R. directors and senior H.R. staff

members at several of the institutions has also caused a problem with the dissemination of essential information to institution employees, and has delayed the correct implementation of new System policies. The Council agreed to request the chancellor bring it to the attention of the presidents.

POLICY IMPLEMENTATION: USMH has only received one-half of the new sick leave policy implementation plans from the institutions. Some are leaving specific regulations to individual departments. If the policy is enforced differently among the various departments on the campuses, this violation should be brought to the attention of the presidents and to the Council immediately.

H.R. liaison Don Tynes agreed to take this issue to the System Human Resources Council so the issue can be brought to the attention of the Chancellor and the Board of Regents.

Staff development will continue to be a major area of development for the Council in the coming year.

The last CUSS meeting of the year was to be held June 26 and include election of officers. Minutes from that meeting have not yet been received.

Ethnic and Minority Issues Commission Presents Annual Awards

Departments, Staff and Students All Recognized

The President's Commission on Ethnic and Minority issues recognized several university departments, staff and students May 13 with an awards ceremony at the Rossborough Inn. Former President William E. Kirwan and Commission chair Charles Christian presented awards to those who have contributed to expanding ethnic and minority opportunities.

The Center for Minorities in Science and Engineering received the Administrative Unit Minority Achievement Award for its diverse staff, increased enrollment of African American, Hispanic American and Native American students, and its efforts to retain and graduate these students. The center provides such outreach activities as the Summer Scholars in Computer Science and Engineering Program, a six-week residential program for high school students, conducted in partnership with Howard University.

The department of Spanish and Portuguese received the Academic Unit Minority Achievement Award for its achievements in recruiting a diverse student population, expanding the curricula to include African diaspora-based courses in Portuguese language, culture and literature, and for developing a comprehensive outreach program to the Latino community.

Doctoral student Rodrigo Lazo received the Graduate Student Minority Achievement Award for his outstanding academic achievement, his contributions in expanding Latino offerings in the English department and his community service. While maintaining a 3.9 GPA, Lazo published three academic articles contributing to discussions in Latino literature and Latin American studies, developed and taught an introductory Latino literature course and helped organize the Fall 1996 symposium "Dialogues across America," which promoted relations between the United States and Latin America.

Naima Stevenson received the Undergraduate Student Minority Achievement Award for her academic achievement and numerous contributions to the College Park community. Stevenson's academic honors include a 3.64 GPA and selection to the Phi Eta Sigma, Alpha Lambda Delta and Golden Key National Honor Societies. Stevenson provided campus leadership and service through such positions as BSU president,

Black History Month Program chair and teaching assistant for two African American studies courses. For outstanding community service, Stephenson also received the Ulysses S. Glee Community Service Award and the James Otis Williams Cultural Leadership Award.

Landscape technician supervisor Andrianna Stuart received the Classified Staff Minority Achievement Award for her excellence as an employee and her many contributions to improving the climate and work conditions for women and ethnic minority employees. Employee of the Year in 1996, Stuart has served on numerous committees including the Senate Executive Committee and the President's Commission on Women's Issues. Stuart's extensive community service also includes the American Indian Inter-Tribal Cultural Organization, Inc., the Baltimore American Indian Center and the Native Youth Alliance Veterans' Association.

Joel Smith received the Associate Staff Minority Achievement Award for his achievement as academic coordinator for the office of Multi-Ethnic Student Education (OMSE) and his contributions to retaining and graduating ethnic minority students in the past 26 years. In 1997,

Smith presented "Mentoring for All Ages—From Elementary School through College" at the First Annual Conference for Black Scholars and Leaders: Preparing our Community for the 21st Century.

Entomology professor Earlene Armstrong received the Faculty Minority Achievement Award for her teaching excellence and outstanding community service. Armstrong established the Prefreshman Academic Enrichment Program, which improves math skills and introduces the collegiate experience to "at-risk" ethnic minority students. Local minority students also recognize Armstrong as the "Bug Lady" after her "Insect and Arthropod Petting Zoo," which she organized for the Plant Sciences Building Dedication Day last September.



Center for Minorities in Science and Engineering staff (l to r) S. Rashid Muller, Rosemary Parker, Christina Moore, Wanda Byrd and Lawanda Saddler, earned the Administrative Unit award.



Andrianna Stuart was the Classified Staff award winner.



Earlene Armstrong took Faculty Achievement award honors.



Saul Sosnowski accepted the Academic Unit award as chair of the department of Spanish and Portuguese.



OMSE's Joel Smith received the Associate Staff award

NASA Satellite Researchers Get a Boost from Students

NASA doesn't usually put college students in charge of its satellites. However, the agency recently put the graduate and undergraduate students in the university's Flight Dynamics and Control Laboratory in charge of navigation and orbital control for its Solar, Anomalous and Magnetospheric Particle Explorer (SAMPEX)—a satellite used to gather information on high-velocity radiation arriving at Earth from the Sun and from interstellar space.

For the past year, laboratory director David Schmidt and his students have been collaborating with NASA's Goddard Space Flight Center to develop the capability for real-time mission support of the SAMPEX as well as other NASA spacecraft. Their work has included the development of mission-analysis software and computer and communication interfaces.

The Flight Dynamics and Control Laboratory took over sole control of the SAMPEX satellite on a trial basis in May and was officially handed the satellite's "reins" in June. The laboratory performs orbit determination, orbit prediction, event scheduling (e.g., ground-station access times, shadow timing, ground track), attitude determination and monitoring of the satellite's sensors.

"Taking over navigational and orbital control of the SAMPEX is exciting both because it is an important part of a unique new research program that our laboratory is developing and because our work with NASA on this project could be a prototype for the agency in turning over mission control responsibilities for other spacecraft in the future," says Schmidt, professor of aerospace engineering.

"The goal of our laboratory's new program is to develop advanced automation technologies for spacecraft navigation and mission control," Schmidt says. "Operating the SAMPEX spacecraft gives us an actual test bed that we can use to evaluate new algorithms,

software tools and other technologies developed in the program.

At the same time, he says, the procedures, techniques and software the students are developing as part of the SAMPEX work could be used or adapted by other universities interested in providing mission control services to NASA.

According to NASA's Tom Stengle, head of the

"...our work with NASA on this project could be a prototype for the agency in turning over mission control responsibilities for other spacecraft in the future."

*— David Schmidt, professor
of aerospace engineering*

Flight Dynamics Analysis Branch at Goddard, there are a few other cases where the agency has turned flight operations for a space craft over to a university.

"What's different in this case is that here it is entirely graduate and undergraduate students who are doing the [mission control] work," Stengle says. "What's especially neat about [the University of Maryland's work on SAMPEX] is that the students are learning

about this area in class and then going over and putting that learning into practice."

Launched July 3, 1992, the SAMPEX is a sun-pointed satellite that currently is in an almost-circular low-Earth orbit. The SAMPEX mission will end when the spacecraft re-enters the atmosphere in 2002.

To study radiation striking the Earth's atmosphere, SAMPEX investigates ions—atoms stripped of one or more negative electrons—of such chemical elements as oxygen and iron. These radiations come from different places in the solar system and the Galaxy, and they carry information about the site of their origination.

Researchers want to know more about these radiation types because they can provide important information about the Sun and its interaction with the Earth, about the local interstellar medium, and about the violent explosions in the galaxy called supernovae. The scientific work of SAMPEX is directed by physics professor Glenn Mason.

The SAMPEX work of the Flight Dynamics and Control Laboratory is just one part of research that involves both theoretical and applied investigations in aeronautics and astronautics. Areas of research include atmospheric flight dynamics, astrodynamics, optimal flight guidance and flight-control systems design and digital control systems.

Lab research programs are conducted in collaboration with several NASA centers, the U.S. Navy, a variety of industry partners and the University of Maryland. Programs range from orbit determination for the SAMPEX and other spacecraft to integrated flight and propulsion control for advanced aircraft and air-breathing launch vehicles."

Terps Crack Sears Directors' Cup Top 20

Continued from page 1

1996, then climbed four more spots (to No. 32) in 1997.

Maryland finished third among ACC schools, only behind No. 2 North Carolina and No. 13 Virginia.

All told, Maryland scored points in 11 of its 24 sports: women's lacrosse (100), men's lacrosse (80), men's basketball (30), field hockey (20), men's soccer (20), volleyball (20), gymnastics (20), women's soccer (10), wrestling (10), men's swimming (10), women's tennis (10).

Recapping Maryland's Sears Directors' Cup Scoring

Women's Lacrosse (100) ... won an unprecedented fourth consecutive NCAA title, defeating No. 1-ranked Virginia in the championship contest ... posted a season record of 18-3.

Men's Basketball (30) ... advanced to the NCAA "Sweet 16" for the third time in the last five years ... finished with a record of 21-11 while playing a schedule rated the nation's toughest.

Field Hockey (20) ... finished with an 18-4 record and advanced to the NCAA quarterfinals ... recorded an 11th consecutive winning season.

Men's Soccer (20) ... set a school record with 16 victories and reached the NCAA's second round

for the fourth consecutive year... posted a 16-6-1 record.

Volleyball (20) ... became only the eighth team in NCAA history to post an unbeaten (25-0) regular season ... Terps finished 27-2 and advanced to the NCAA's second round for the third consecutive year.

Gymnastics (20) ... advanced to the NCAA Southeast Regional ... posted an overall record of 22-18.

Women's Soccer (10) ... advanced to the NCAA Tournament ... finished with a 12-9-3 record.

Wrestling (10) ... seniors Jeff Whalen and Shane Mack qualified for the NCAA Championships, helping the Terps to a 46th-place national finish.

Men's Swimming (10) ... freshman diver Kevin Burke, who won ACC one- and three-meter titles, earned honorable mention All-America honors at the NCAA Championships, boosting Maryland to a 36th-place national finish.

Women's Tennis (10) ... advanced to the NCAA Regionals and sent the doubles team of Meg Griffin and Lorraine Bittles to the NCAA Championships.

NCAA Division I Top 25

1. Stanford University (1010 points)
2. University of Florida, Gainesville (669)
2. University of North Carolina, Chapel Hill (660)
4. University of California, Los Angeles (630)
5. University of Michigan, Ann Arbor (620)
6. University of Arizona, Tucson (510)
7. University of Georgia, Athens (500)
8. University of Washington, Seattle (460)
9. University of Nebraska, Lincoln (450)
10. Louisiana State University (440)
10. University of Southern California (440)
12. Arizona State University (430)
13. University of Virginia (420)
14. University of Arkansas, Fayetteville (400)
15. Penn State University, University Park (380)
15. University of Texas, Austin (380)
17. University of Minnesota, Twin Cities (370)
18. Brigham Young University
19. University of California, Berkeley (330)
19. University of Colorado, Boulder (330)
- 19. University of Maryland, College Park (330)**
19. University of Tennessee, Knoxville (330)
23. Ohio State University (320)
24. Oklahoma State University (310)
25. Auburn University (300)

Maryland Lookback

Alumnus Offers 19th Century Advice to Agricultural College

"EVERYTHING hinges on the selection of the men." Those words were penned by William B. Sands (A.B., 1862), one of the first two graduates of Maryland Agricultural College (MAC) in a letter to the Honorable James Earle, then a member of the Board of Trustees of MAC.

Written 15 years after Sands' graduation, the letter focuses on the crucial issue of choosing faculty for Sands' beloved alma mater.

Sands wrote: "The professor of agriculture must be a man whom success commends. He should be a practical farmer; a gentleman in manner and address; not only originally well educated, but well up to the progress made, especially in Science; not an old man; certainly not one whose farm does not keep him; far less one who fails to wring a support from a 'profession'. He ought to believe in farming as an honorable pursuit, offering moderate returns for skill and intelligence; and be an advocate of the education of farmers. He should take his chair feeling sure of his tenure, that he may develop [sic] his capacity and fitness for a work, not to be completed in a month or a year; and with no cause for apprehension that a sudden change may put an end to his labors. By preference he ought to be a Maryland man, but the best man obtainable should be

had regardless of State lines."

This letter was recently discovered during the processing of the papers of Thomas Symons, a former director of Maryland Cooperative Extension Service who also served as acting president of the University of Maryland. The letter is the only original handwritten letter by Sands in the University Libraries' Archives and Manuscripts Department. It is extremely valuable and interesting

because of its extensive discussion of Maryland Agricultural College. The 18-page letter includes Sands' views on the direction the college should take in the future and on how to mold it into the institution he envisioned. Most of his suggestions were not put into action when he proposed them, and some, like his desire to see the institution focused solely on the education of "youth who were to engage in agricultural pursuits," never came to fruition.

"I should rejoice to see our future farmers scholarly in tastes and solid in acquisitions," wrote Sands.

"I believe in the humanizing and elevating influences of letters; I believe a farmer will be no

worse a farmer, while his life might be more pleasant and perhaps happier if he could read the Latin poets in the original and if his mind were trained by the discipline of the higher mathematics.

"Twenty years ago our farmers were mostly men of at least moderate means, and formed, comparatively, a leisurely class. The reverse is the case now. No class is more constantly at work. In most instances, instead of direction and supervision, their own hands have to partake of the toil.

"As a rule, the sons of farmers now have not time to acquire a general education. Unless they are intended for the bar, the sacred desk, or the practice of medicine, the country grammar school supplies them all the 'learning' they are to receive; and it is usually understood and admitted that to 'go to college' leads them from, instead of towards, the farm. Hence the dubious regard with which so many farmers view any liberal education for such of their sons as are to succeed to their own calling."

MAC, which later became the Maryland State College of Agriculture and, finally, the University of Maryland, moved even further from agriculture as its central focus by the middle of the 20th century. Another of his suggestions, dropping the military component of the students' training except as mandated by law, would later take shape.

Recently returned from conservation treatment, the 1877 letter has been transferred to the Papers of William B. Sands, which previously contained only facsimiles of correspondence. The Archives and Manuscripts Department is significantly enhanced by this unique document that illuminates the early history of the University of Maryland through the words of one of its first students.

—ANNE TURKOS, UNIVERSITY ARCHIVIST



FOR YOUR INTEREST

Humphrey Hosts Needed

Hosts are being recruited for the 1998-99 Humphrey Fellows—mid-career professionals from developing nations—who will arrive in August to begin an academic year in College Park. The program is sponsored by the College of Journalism.

Volunteers are asked to meet a fellow at a Washington-area airport on Saturday, Aug. 8, host him or her overnight and deliver their guest to campus the following afternoon. In addition, hosts are encouraged to meet with the fellows several times during the year to share with them the variety of American culture. The group this year includes six men and four women, from Bosnia, China, Mongolia, Morocco, Mozambique, Namibia, Nigeria, Sri Lanka, Vietnam and Zimbabwe.

To volunteer, contact Bill Eaton (beaton@jmail.umd.edu) at 405-2415 or Meg McCully (mmccully@jmail.umd.edu) at 405-2513.

Road Work Alert

As of July 6, Paint Branch Drive is closed at the Campus Creek just

south of parking lots 4 and 11. The road is anticipated to reopen to vehicular traffic on Aug. 14.

Traffic will be detoured onto Regents Drive while the bridge is being replaced. Local traffic will be able to access parking lots 4, 11 and K4 adjacent to the Agriculture/Life Surge Building.

Any questions should be directed to the department of architecture, engineering and construction at 405-5075.

Welcome Japanese Students

Once again Maryland English Institute will host students from Japan's Aoyama Gakuin University, July 28 to August 16. Anyone interested in Japanese culture or international students in general is invited to participate as speaking partners or host families. Speaking partners meet with their student for conversation while host families provide one overnight stay in an American home on Aug. 8.

For more information please call Marybeth Kamibepu at 405-7948 or email her at mk139@umail.

Provide Faculty Advice

The Division of Letters and Sciences (L&S) is seeking faculty participants for its advising program. L&S is the advising home for students who have multiple academic interests and have not declared a major. One-third of the university's students enter as L&S students.

Participation in L&S advising can help:

- new faculty familiarize themselves with the undergraduate curriculum and related academic policy.
- experienced faculty familiarize L&S professional staff with curricular concerns and requirements.

In addition, L&S can help faculty and departmental advisers identify potential students for your major. To request an information packet, please e-mail Dr. Wendy Whittemore, wwhitte@deans.umd.edu

Printmakers on Display

The Parents' Association Gallery is pleased to present the "Maryland Printmakers Juried Member Show" through July 29. Demonstrations of printmaking techniques are scheduled throughout the duration of the

exhibit. Dates and time of demonstrations are as follows:

Saturday, July 25, 2 to 4 p.m.

Monday, July 27, 4 to 6 p.m.

The Maryland Printmakers was founded in 1989 by Sam Peter and John Sparks. The objective of Maryland Printmakers, Inc., is to promote printed art through education, demonstrations and traveling exhibits. Membership is open to any individual committed to the promotion of printmaking.

The Parents' Association Gallery is open to the public Monday through Saturday, 10 a.m. to 6 p.m. The Gallery is located on the first floor of the Stamp Student Union, next to the information desk. For information regarding current and upcoming exhibitions at the Parents' Association, please call 314-8493.